

**Remarks/Arguments:**

Claims 1-11 are pending and stand rejected.

By this Amendment, claim 1 is amended and claims 6 and 7 are cancelled. No new matter is presented by this claim amendment. Support for the claim amendment can be found throughout the specification and, in particular, at page 5, line 19 to page 6, line 1.

**Rejection of Claims 1, 2, 4, 6, 7, 10 and 11 Under 35 U.S.C. §102(b)**

In the Office Action, at item 4, claims 1, 2, 4, 6, 7, 10 and 11 are rejected under 35 U.S.C. §102(b) as being anticipated by Yokoyama et al. (U.S. Patent No. 5,375,256) (hereafter referred to as "Yokoyama").

Reconsideration is respectfully requested.

**Claim 1**

Claim 1 is directed to a high-frequency device, and recites:

... a capacitance element having one end connected to said signal line and another end grounded, the capacitance element having a capacitance not larger than 10 pF; and

an inductor connected in parallel with the capacitance element, the inductor having an inductance not smaller than 3 nH and not larger than 50 nH.

That is, the inductor is connected in parallel with the capacitance element with both the inductor and capacitance elements having a selected range of values (i.e., the capacitance element having a capacitance value of not larger than 10 pF and the inductor having an inductance value not smaller than 3 nH and not larger than 50 nH).

### **Yokoyama Reference**

Yokoyama discloses an impedance matching circuit 4 that includes a first inductor 43 connected between an antenna terminal 41 and a signal receiving terminal 46 and a first capacitor 42 connected between the antenna connecting terminal 41 and ground potential. A parallel resonance circuit composed of a parallel circuit of a second inductor 45 and a second capacitor 44 are connected between the signal receiving terminal 46 and ground potential. (See Yokoyama at col. 3, lines 48-56.) Yokoyama further discloses the first inductor 43 is set to an inductance of about 11.5 nH, the second inductor 45 is set to an inductance of about 1.2 nH, the first capacitor 42 is set to about 2.5 pF and the second capacitor 44 is set to about 27 pF. (See Yokoyama at col. 5, lines 24-25, 33-34 and 60-63.)

The Examiner in the Office Action corresponds the capacitance element recited in claim 1 to either the first capacitor 42 or the second capacitor 44 of the matching circuit of Yokoyama.

With respect to the first capacitor 42 of Yokoyama, neither the first inductor 43 nor the second inductor 45 is connected in parallel with the first capacitor 42. This is because, in Yokoyama a parallel resonance circuit composed of the second inductor 45 and the second capacitor 44 are in series with the first inductor 43 and this parallel resonance circuit 44 and 45 with the first inductor 43 is in parallel with the first capacitor 42. That is, second capacitor 44 of Yokoyama creates a resonance circuit that is different from the structure recited in claim 1.

With respect to the second capacitor 44 of Yokoyama, since the second capacitor 44 has a capacitance value of 27 pF, it cannot correspond to the capacitance element recited in claim 1 because its capacitance value is larger than 10 pF (i.e., it is outside of the capacitance range of not larger than 10 pF, as required by claim 1). Moreover, since in Yokoyama the inductance value of the second inductor 45 is set to about 1.2 nH, it also cannot correspond to the inductor recited in claim 1 because its inductance value is outside of the range recited in claim 1 (i.e., not smaller than 3 nH and not larger than 50 nH). Further, with respect to the second capacitor 44 of Yokoyama, the first inductor 43 is not in parallel with the second capacitor 44, because the series composed of the first inductor 43 and the first capacitor 42 are in parallel with second capacitor 44. That is, the structure in Yokoyama of the second capacitor 44 in parallel with the

series of the first inductor 43 and the first capacitor 42 is different from the structure recited in claim 1. In particular, the first capacitor 42 changes the impedance characteristics of such a structure.

Accordingly, claim 1 is submitted to patentably distinguish over Yokoyama for the above noted reasons, and is submitted to be allowable.

**Claims 2, 4, 6, 7, 10 and 11**

Claims 2, 4, 10 and 11, which include all the limitations of claim 1, are submitted to patentably distinguish over Yokoyama for at least the same reasons set forth above with respect to claim 1, and are submitted to be allowable.

Claims 6 and 7 have been cancelled without prejudice. Accordingly, the rejection of these claims is now moot.

**Rejection of Claim 3 Under 35 U.S.C. §103(a)**

In the Office Action, at item 6, claim 3 is rejected under 35 U.S.C. §103(a) as being obvious over Yokoyama in view of Killen et al. (U.S. Patent No. 6,720,926) (hereafter referred to as "Killen").

Reconsideration is respectfully requested.

Claim 3, which depends from claim 1, is submitted to patentably distinguish over Yokoyama for at least the same reasons set forth above with respect to claim 1.

The additional reference to Killen does not overcome the deficiency of Yokoyama. That is, Killen does not disclose or suggest the features in claim 1 of: "a capacitance element not larger than 10 pF ... an inductor connected in parallel with a capacitance element; the inductor having an inductance not smaller than 3 nH and not larger than 50 nH," as required by claim 1. This is because, Killen is merely used by the Examiner to teach an inductor being formed by a printed circuit which is mounted on a printed circuit board and, in particular, Killen is silent

regarding anything related to capacitance elements and inductors having impedance values in the range recited by claim 1.

Accordingly, claim 3, which includes all the limitations of claim 1, is submitted to patentably distinguish over Yokoyama and Killen taken singularly or in any proper combination for the reasons set forth above, and is submitted to be allowable.

#### **Rejection of Claim 5 Under 35 U.S.C. §103(a)**

In the Office Action, at item 7, claim 5 is rejected under 35 U.S.C. §103(a) as being unpatentable over Yokoyama in view of Gupta et al. (U.S. Patent No. 4,729,058) (hereafter referred to as "Gupta").

Reconsideration is respectfully requested.

Claim 5, which depends from claim 1, is submitted to patentably distinguish over Yokoyama for the same reasons as set forth above with respect to claim 1.

The additional reference of Gupta does not overcome the deficiencies of Yokoyama. This is because, Gupta does not disclose or suggest the recitation of claim 1 of: "an inductor connected in parallel with the capacitance element, the inductor having an inductance not smaller than 3 nH and not larger than 50nH," as required by claim 1. That is, Gupta is silent regarding anything related to an inductor.

Accordingly, claim 5, which includes all the limitations of claim 1, is submitted to patentably distinguish over Yokoyama and Gupta taken singularly or in any proper combination for the reasons set forth above, and is submitted to be allowable.

#### **Rejection of Claims 8 and 9 Under 35 U.S.C. §103(a)**

In the Office Action, at item 8, claims 8 and 9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Yokoyama in view of Rishi (U.S. Patent No. 6,127,884).

Reconsideration is respectfully requested.

Claims 8 and 9, which depend from claim 1, are submitted to patentably distinguish over Yokoyama for at least the same reasons as set forth above with respect to claim 1.

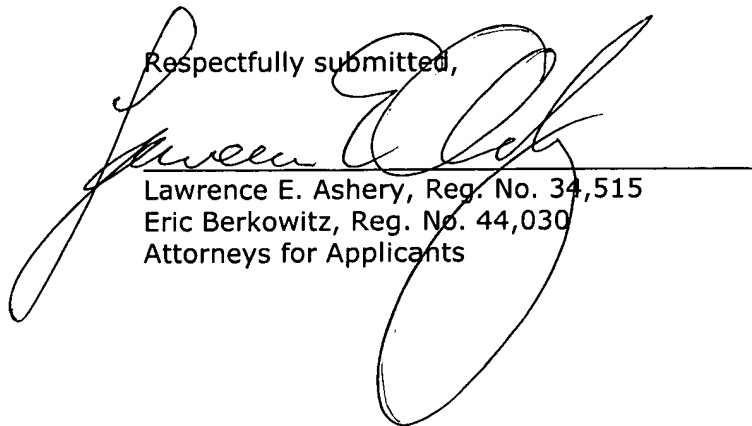
The additional reference of Rishi does not overcome the deficiencies of Yokoyama. This is because, Rishi does not disclose or suggest a "capacitance element" or "an inductor," as required by claim 1. Rishi is used by the Examiner merely to teach a duplexer or a switch for allowing a network to share a common antenna system and also a filter connected to the switch.

Claims 8 and 9, which include all of the limitations of claim 1, are submitted to patentably distinguish over Yokoyama and Rishi taken singularly or in any proper combination for the reasons set forth above, and are submitted to be allowable.

### **Conclusion**

In view of the claim amendments and remarks set forth above, Applicants request that the Examiner reconsider and withdraw the rejection of claims 1-5 and 8-11.

Respectfully submitted,



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